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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/467,168	12/20/1999	JAMES MARSHALL OATHOUT	SS2945	2005

23906 7590 07/30/2003

E I DU PONT DE NEMOURS AND COMPANY
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4417 LANCASTER PIKE
WILMINGTON, DE 19805

EXAMINER

BEFUMO, JENNA LEIGH

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 07/30/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/467,168

Applicant(s)

OATHOUT, JAMES MARSHALL

Examiner

Jenna-Leigh Befumo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-15 and 18-26 is/are pending in the application.
- 4a) Of the above claim(s) 8-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 20, 2003 has been entered.

Response to Amendment

2. Amendment D, submitted as Paper No. 21 on June 20, 2003, has been entered. Claims 1 – 7, 16, and 17 have been cancelled. Claims 18 – 26 have been added. Therefore, the pending claims are 8 – 15 and 18 – 26. Claims 8 – 15 are withdrawn from consideration as being drawn to a nonelected invention.

3. The cancellation of claims 1 – 7, 16, and 17 renders the rejections to those claims set forth in the previous Office action moot. Rejections to the newly added claims are set forth below.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 18 – 22, 24, and 26 are rejected under 35 U.S.C. 103(a) as obvious over Bhattacharjee et al. (6,235,660) in view of Fujii (6,159,421).

Bhattacharjee et al. is drawn to materials used in “cleanrooms”, semiconductor fabrication plants, pharmaceutical facilities, and other applications where extreme cleanliness must be maintained (column 1, lines 10 – 16). Products used in semiconductor fabrication cleanrooms include clean wipers which are combined with cleaning solution to wipe down surfaces (column 1,

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lines 25 – 30). Cleanroom wipers should emit as small a number of particles as possible (column 2, lines 2 – 30). Bhattacharjee et al. teaches that various wiper fabrics have been used successfully in cleanroom applications, including nonwoven fabrics such as spunbond polypropylene fabrics and hydroentangled fabrics having cellulose and polyester fibers (column 5, lines 20 – 45). While Bhattacharjee et al. teaches these fabrics can be used in cleanrooms used to produce semiconductors, Bhattacharjee et al. fails to teach the level of the cleanroom in which the nonwoven wiper fabric is used.

Fujii is drawn to preventing contamination in cleanrooms used in semiconductor fabrication (column 1, lines 5 – 10). Fujii discloses that semiconductor process occurs in cleanrooms having a Class 10 level (column 9, lines 27 – 30). Therefore, it would have been obvious to one of ordinary skill in the art to clean class 10 cleanrooms with the cleanroom wipers taught by Bhattacharjee et al. since Bhattacharjee et al. teaches that the nonwoven wipers can be used in semiconductor fabrication and Fujii discloses that semiconductor fabrication occurs in Class 10 cleanrooms.

Although the limitations of particle removal efficiency, sorptive capacity, and remaining particles are not explicitly taught by Bhattacharjee et al., it is reasonable to presume that said limitations would be met by the reference. Support for said presumption is found in the use of similar materials (i.e. hydroentangled nonwoven wipers having polyester fibers) and in the similar production steps (i.e. cleaning the surface by wiping using a wipe and a liquid cleaning solution) used to clean the cleanroom surface. The burden is upon the Applicant to prove otherwise. Therefore, claims 18 – 22, 24, and 26 are rejected.

6. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bhattacharjee et al. in view of Fujii as applied to claim 18 above, and further in view of Morin et al. (6,189,189).

The features of Bhattacharjee et al. and Fujii et al. have been set forth above. Bhattacharjee et al. teaches that the cleanroom wiper should leave as few particles as possible on the cleanroom surface. Bhattacharjee et al. fails to teach that the wiper is cleanroom laundered. Morin et al. is drawn to a method of producing cleanroom wipers. Morin et al. teaches that it is desirable to wash the wiper fabric in a cleanroom laundry to remove and minimize contamination in the wipers (column 4, lines 6 – 10). Therefore, it would have been obvious to one of ordinary skill in the art to cleanroom launder, as taught by Morin et al., the cleanroom wiper fabrics taught by Bhattacharjee et al. to remove and minimize the contaminants present in the cleanroom wiper since Bhattacharjee et al. teaches it is desirable for the fabric to emit as small a number of loose particles as possible. Therefore, claim 25 is rejected.

7. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bhattacharjee et al. in view of Fujii as applied to claim 18 above, and further in view of Beaty et al. (5,807,870).

The features of Bhattacharjee et al. and Fujii et al. have been set forth above. Bhattacharjee et al. fails to teach using lyocell fibers as the cellulose component in the hydroentangled nonwoven wiper fabric. Beaty et al. is drawn to hydroentangled nonwoven fabrics. Beaty et al. teaches that lyocell fibers, a man-made cellulosic material, have superior tensile and aesthetic properties than other cellulosic materials, including cotton and rayon (column 1, lines 23 – 33). Therefore, it would have been obvious to one of ordinary skill in the art to use lyocell fibers as the cellulose fibers in the hydroentangled nonwoven fabric taught by Bhattacharjee et al., since Beaty et al. teaches that lyocell has better wet tensile and aesthetic properties than other cellulose fibers.

Further, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the amount of polyester and lyocell fibers to the amounts claimed, since it has been held that discovering an optimum value of a result effective variable involves only

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routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215. One of ordinary skill would want to optimize the amounts of both materials in the fabric, so that the fabric has good strength and durability properties due to the polyester fibers and good absorbency properties due to the lyocell fibers, while minimizing the amount of particles produced by the fabric. Therefore, claim 23 is rejected.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenna-Leigh Befumo whose telephone number is (703) 605-1170. The examiner can normally be reached on Monday - Friday (8:00 - 5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Jenna-Leigh Befumo
July 24, 2003



CHERYL A. JUSKA
PRIMARY EXAMINER